

Declaration under Rule 132 of Dr. Charles Nicolette

1. I am the Chief Scientific Officer and Vice President, Research and Development, of Argos Therapeutics, Inc., in Durham, North Carolina. My *curriculum vitae* is attached.

2. I am familiar with the pending claims of U.S. Application No. 10/535,522, entitled "Use of Soluble Forms of CD83 and Nucleic Acids Encoding them for the Treatment or Prevention of Diseases," which is assigned to Argos Therapeutics. Argos has conducted and sponsored experiments that demonstrate the immunosuppressive properties of CD83.

3. Exhibit A (attached) shows the results of an experiment in a mouse kidney transplant model that demonstrate that sCD83 treatment results in permanent allograft acceptance. The CD83 used in this experiment is monomeric CD83 protein consisting of amino acid residues 1 to 130 of SEQ ID NO:8, wherein the third cysteine residue, corresponding to residue 85 of SEQ ID NO:8, is substituted with a serine residue. Kidneys were removed from C57BL/6 mice and transplanted into BALB/c mice; the transplant recipient mice were monitored for survival of the graft. One group of transplant recipients was treated by intravenous administration of 100 micrograms of sCD83 each day, beginning on the day before transplantation and continuing until 7 days after transplantation. The other group of transplant recipients was the control group, which was not treated before or after transplantation. The kidney transplants of the two mice in the untreated control group survived for 28 and 35 days, while the kidney transplants of the three mice in the sCD83 treatment group survived for over 100 days, at which time the experiment was terminated. Examination of the transplanted kidneys in each group showed that the transplants in the CD83 group retained normal histology at the end of the experiment, while tissue from the untreated control group showed histology indicating severe rejection.

4. Exhibit B (attached) shows the results of an experiment in a mouse model of Irritable Bowel Disease (IBD) demonstrating that CD83 decreased the intestinal damage seen in this model. The CD83 used in this experiment was the same form as that used for the experiments described in Exhibit A (see point #3 above). IBD was induced in mice by


intrarectal administration of 3-5 mg DNBS (dinitrobenzenesulfonic acid). One group of mice ("CD83 group") was treated by intraperitoneal administration of 100 micrograms of sCD83 each day beginning on the day before administration of the DNBS and continuing until 2 days after the administration of DNBS. Another group ("DNBS group") was left untreated following administration of DNBS as a control, and a third group ("untreated group") was not treated with either DNBS or with sCD83. Examination of intestinal tissue and comparison of macroscopic and histological scores of over 20 mice in each group showed that the pathology of DNBS-induced colitis was attenuated by treatment with CD83 ($p < 0.001$; see page entitled "Macroscopic and Histological Scoring"). Further, the mortality seen in the DNBS group was not seen in either the CD83 or untreated group (see page entitled "Mortality"). Histological examination showed that the evident damage resulting from DNBS administration was prevented by sCD83 (see page entitled "Histopathology of Mice....").

5. Exhibit C (attached) shows the results of an experiment in the NOD mouse model of insulin-dependent diabetes mellitus (IDDM). The CD83 used in this experiment was monomeric CD83 protein consisting of amino acid residues 1 to 130 of SEQ ID NO:8, wherein the fifth cysteine residue, corresponding residue 114 of SEQ ID NO:8, is substituted with a serine residue. NOD mice develop diabetes after about 17 weeks of age. In this experiment, mice in the CD83 test group were treated with 100 micrograms of CD83 intraperitoneally every second day for two weeks beginning in week 11; another group was left untreated as a control group. Five of six CD83-treated mice did not develop diabetes during the course of the experiment, while 5 of 8 of the untreated NOD mice did develop diabetes, demonstrating that CD83 can block the onset of diabetes in this model.

6. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are

punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 4/27/2010

By: 
Dr. Charles Nicolette

CURRICULUM VITAE**Charles A. Nicolette, Ph.D.**

5 Allen Moore Court, NC 27703
 (919) 201-9929 (W); (919) 687-7562 (H)
 knicolette@nc.rr.com

<u>SCHOOL:</u>	<u>DEGREE:</u>	<u>GRAD/YEAR:</u>	<u>DISCIPLINE:</u>
State University of New York at Stony Brook	Ph.D.	1993	Cell. Dev. Biol/Biochem.
State University of New York at Stony Brook	B.S.	1984	Biochemistry

RESEARCH AND PROFESSIONAL EXPERIENCE:

2007-Present	Chief Scientific Officer, Vice President of Research and Development, Argos Therapeutics, Inc., North Carolina [Argos Therapeutics Inc. (formerly Merix Bioscience, Inc.) is a development/clinical stage company developing therapeutics to treat cancer, infectious diseases, and autoimmune diseases.]
2004-2006	Vice President of Research and Development, Argos Therapeutics Inc., North Carolina
2003-2004	Vice President of Research, Merix Bioscience, North Carolina
2001-2003	Director, Antigen Discovery, Genzyme Corporation, Framingham MA
1999-2001	Associate Director, Antigen Discovery; Genzyme Molecular Oncology, Framingham, MA
1998-1999	Senior Scientist, Cancer Gene Therapy Immunology; Genzyme Molecular Oncology, Framingham, MA
1997-1998	Research Scientist II, Cancer Gene Therapy Immunology; Genzyme Molecular Oncology, Framingham, MA
1996-1997	Independently developed, financed, and filed patent application on SPHERE technology (sold to Genzyme in 1997 and led to spinout of Genzyme Molecular Oncology)
1993-1996	Postdoctoral fellow under Dr. Michael Wigler Cold Spring Harbor Laboratory, N.Y.
1988-1993	Doctoral Research in Dr. Michael H. Wigler's Laboratory Cold Spring Harbor Laboratory, N.Y.
1986-1993	Director, DNA Synthesis Core Facility at Cold Spring Harbor Laboratory.
1986-1988	Advanced Graduate Student Research in Dr. Mark J. Zoller's laboratory, Cold Spring Harbor Laboratory, N.Y.
1985-1993	Graduate Student; Dept. of Cellular and Developmental Biology and Biochemistry, State University of New York at Stony Brook

1985 Cell Culture Technician for Dr. Lorne B. Taichman
State University of New York at Stony Brook

BUSINESS ACHIEVEMENTS

2007 Closed deal with Therakos (Johnson & Johnson) \$89MM
2006 Awarded NIH contract to develop Argos' HIV product, Principle Investigator (\$21.3MM)
2005 Recipient of \$1MM Research grant from the Alliance for Lupus Research to complete development of anti-interferon- α monoclonal Ab.
2005 Closed monoclonal Ab. licensing deal between Argos and Novo Nordisk (\$69MM)
2004 Closed deal between Argos and Kirin Pharmaceuticals (>\$60MM next 2 yrs. for Argos + 50:50 cost sharing going forward with no term limit)
2004 Closed technology licensing deal between Argos and Geron Corp. (\$33MM cash for Argos)
2000 Established high throughput antigen discovery collaboration based on SPHERE technology between Genzyme Corp. and Purdue Pharma (largest deal of its kind in that field; >\$330MM for Genzyme)

HONORS:

2010 Invited Speaker – Active Immunotherapeutics Conference (Barcelona, Spain)
2010 Invited Speaker – Department of AIDS (Bethesda MD)
2009 Invited speaker – American Society of Transplantation Conference (Miami)
2008 Invited speaker – NY Academy of Science
2007 Invited speaker – DC2007 Conference (Bamberg, Germany)
2006 European Cancer Vaccine Consortium – (Sardinia, Italy)
2006 Invited speaker – LIAI Conference (San Diego, CA)
2005 Invited speaker/Chairman – Cambridge Healthtech Inst. Cancer Vaccine Conference (Boston)
2005 Invited speaker – World vaccine conference (Montreal, April '05)
2004 Invited speaker, Immunotherapy of Cancer Meeting (London, UK)
2004 Invited speaker, World Vaccine Conference (Montreal, Canada)
2003 Invited speaker, CHI's Gene Quantification conference (Baltimore, MD)
2002 Chosen to appear in a nationwide television advertising campaign to promote the biotechnology industry's work in cancer (PHARMA)
1999 Vice President's Award, Genzyme Molecular Oncology
1998 Vice President's Award, Genzyme Molecular Oncology
1988 Elected to Sigma Xi, (Scientific Research Society)

PUBLICATIONS:

Routy, JP and Nicolette C. (2010) Arcelis™ AGS-004 dendritic cell-based immunotherapy for HIV infection. *Immunotherapy* (Accepted)

L. Zhang, N. Narayanan, S. Brand, M. Moo-Young, CA, Nicolette, and CP. Chou, (2010) Structural Identification of Recombinant hCD83ext Mutant Variant as a Therapeutic Protein. *Protein Expr Purif* (submitted)

- W. Ge, J. Arp, D. Lian, W. Liu, M.L. Baroja, J. Jiang, S. Ramcharran, FZ. HDeen, E. Zinser, A. Steinkasserer, P. Chou, S. Brand, C. Nicolette, B. Garcia, H. Wang (2010) Immunosuppression Involving Soluble CD83 Induces Tolerogenic Dendritic Cells That Prevent Cardiac Allograft Rejection (2010) *Transplantation* (submitted)
- Routy JP, Boulassel MR, Yassine-Diab B, Nicolette C, Healey D, Jain R, Landry C, Yegorov O, Tcherepanova I, Monesmith T, Finke L, Sékaly RP (2010) Immunologic activity and safety of autologous HIV RNA-electroporated dendritic cells in HIV-1 infected patients receiving antiretroviral therapy. *Clin Immunol*. **134**:140-147.
- I. Tcherepanova, A. Starr, B. Lackford, MD. Adams, JP Routy, MR. Boulassel, D. Calderhead, D. Healey, CA Nicolette (2009) The Immunosuppressive Properties of the HIV Vpr Protein Are Linked to a Single Highly Conserved Residue, R90. *PLoS ONE* 4(6): e5853
- MA DeBenedette, DM Calderhead, H. Ketteringham, AH Gamble, JM. Horvatinovich, IY Tcherepanova, CA Nicolette, DG Healey (2008) Priming of a novel subset of CD28+ rapidly expanding high avidity (REHA) effector memory CTL by PME-CD40L DC is IL-12 dependent. *J. Immunol.* (Accepted)
- D. Calderhead, MA DeBenedette, H. Ketteringham, AH Gamble, JM Horvatinovich, IY Tcherepanova, CA Nicolette, DG Healey (2008) Cytokine maturation followed by CD40L mRNA electroporation results in a clinically relevant dendritic cell product capable of inducing a potent pro-inflammatory CTL response. *J. Immunother.* (Accepted).
- I. Tcherepanova, M. Adams, X. Feng, A. Hinohara, J. Horvatinovich, D. Calderhead, D. Healey, CA Nicolette (2008) Ectopic expression of a truncated CD40L protein from synthetic post-transcriptionally capped RNA in dendritic cells induces high levels of IL-12 secretion. *BMC* (Accepted)
- I. Tcherepanova, J. Harris, A. Starr, J. Cleveland, H. Ketteringham, D. Calderhead, J. Horvatinovich, D. Healey, CA Nicolette (2007) Multiplex RT-PCR amplification of HIV genes to create a completely autologous DC-based immunotherapy for the treatment of HIV infection. *PLoS ONE* 3(1): e1489
- CA Nicolette, D Healey, I Tcherepanova, P Whelton, T Monesmith, L Coombs, LH Finke, T Whiteside, F Miesowicz (2007) Dendritic Cells for Active Immunotherapy: Optimizing Design and Manufacture in Order to Develop Commercially and Clinically Viable Products. *Vaccine* 25(2):47-60
- Huang, Y., Franklin, J., Gifford, K., Roberts, BL, and Nicolette, CA (2004) Ab SCAN: A high-throughput method to identify antibody targets associated with malignant disease. *Clinical Immunology* 111:202-9
- Nicolette, CA, Miller, GA , (2003) The identification of clinically relevant markers and therapeutic targets. *Drug Discov Today* 8:31-8
- Nicolette, CA, Miller, GA , (2003) The identification of clinically relevant markers and therapeutic targets. *Proteomics Select - The Virtual Journal of Proteomics* Issue 2 (published on-line: <http://www.proteomicsvj.com>).
- Lawendowski, CA, Giurleo, GM, Huang, YY, Franklin, GJ, Kaplan, JM, Roberts, BL, Nicolette, CA (2002) Solid-phase epitope recovery: a high throughput method for antigen identification and epitope optimization. *J Immunol* 169:2414-21

Keever-Taylor, CA, Margolis, D, Konings, S, Sandford, GR, Nicolette, CA, Lawendowski, C, Burns, WH (2001) Cytomegalovirus-specific cytolytic T-cell lines and clones generated against adenovirus-pp65-infected dendritic cells. *Biol Blood Marrow Transplant* 7:247-56

Scaria, A, Sullivan, JA, St George, JA, Kaplan, JM, Lukason, MJ, Morris, JE, Plog, M, Nicolette, C, Gregory, RJ, Wadsworth, SC (2000) Adenoviral vector expressing ICP47 inhibits adenovirus-specific cytotoxic T lymphocytes in nonhuman primates. *Mol Ther* 2:505-14

Linette, GP, Shankara, S, Longerich, S, Yang, S, Doll, R, Nicolette, C, Pfeffer, FI, Roberts, BL, Haluska, FG (2000) In vitro priming with adenovirus/gp100 antigen-transduced dendritic cells reveals the epitope specificity of HLA-A*0201-restricted CD8+ T cells in patients with melanoma. *J Immunol* 164:3402-12

White, M.A., Nicolette, C, Minden, A., Polverino, A., Van Aelst, L., Karin, M. and Wigler M.H. (1995) Multiple *Ras* functions can contribute to mammalian cell transformation. *Cell* 80: 533-41

Chang, E., Nicolette, C, Camonis, J., Wang, Y. and Wigler, M.H. (1992) Characterization of a human cDNA which imparts *ras1*-like activity in *S. pombe*. *16th Int. Conf. on Yeast Genetics and Molec. Biol.* pp. S681

Colicelli, J., Nicolette, C, Birchmeier, C., Rodgers, L., Riggs, M. and Wigler, M.H. (1991). Expression of three mammalian cDNAs that interfere with *RAS* function in *Saccharomyces cerevisiae*. *Proc. Natl. Acad. Sci. (USA)* 88: 2913-2917.

Kuret, J., Johnson, K.E., Nicolette, C., and Zoller, M.J. (1988). Mutagenesis of the regulatory subunit of yeast cAMP-dependent protein kinase: isolation of site-directed mutants with altered binding affinity for catalytic subunit. *J. Biol. Chem.* 263: 9149-9154.

SELECTED PATENTS:

1 [Issued]

Title: *Therapeutic compounds*

Inventors: Nicolette, Charles A. (Framingham, MA)

Assignee: Genzyme Corporation (Framingham, MA)

Patent No.: 6,528,060

Filed: March 16, 2000

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode the compounds, and immune effector cells raised in response to the presentation of these compounds. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compounds of the invention.

2 [Issued]

Title: *Method for identifying cytotoxic T-cell epitopes*

Inventors: Nicolette, Charles A. (Marlborough, MA)

Assignee: Genzyme Corporation (Framingham, MA)

Patent No.: 6,338,945

Filed: December 11, 1997

Abstract

A method for isolating bio-active molecules from complex, rationally designed oligopeptide libraries which elicit cytolytic activity from cloned cytotoxic T lymphocytes (CTLs). The method allows the simultaneous screening of multiple CTL lines against indexed peptide libraries synthesized on solid phase support. Preferably decoding is not dependent on the presence of residual peptide and does not employ peptide sequencing. The method to identify CTL-reactive oligopeptides yields products of therapeutic value such as vaccines in treating cancers, viral diseases, and autoimmune diseases, as well as to identify useful clinical diagnostic reagents with a reduction in assay time and increase in throughput.

3 [Issued]

Title: *Melanoma antigenic peptides*

Inventors: Nicolette, Charles A. (Marlborough, MA)

Assignee: Genzyme Corporation (Framingham, MA)

Patent No.: 6,306,640

Filed: February 11, 1999

Abstract

Thus, this invention provides novel, synthetic polypeptide vaccines against human melanoma and methods for making these vaccines. Polynucleotides encoding these polypeptides are further provided herein. These compositions are useful as melanoma vaccines and in adoptive immunotherapy.

4 [Issued]

Title: *Therapeutic anti-cytomegalovirus compounds*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Patent No.: 6,579,970

Filed: March 19, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

5 [Issued]

Title: *Immunogenic compositions*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Patent No.: 6,737,062

Filed: May 30, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

6 [Issued]

Title: *Therapeutic anti-melanoma compounds*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Patent No.: 6,861,408

Filed: May 21, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

7

Title: *MART-1 compounds for therapy and diagnosis and methods for using same*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 066474

Filed: January 31, 2002

Abstract

The present invention provides methods and compositions for detecting, diagnosing, prognosing and monitoring the progress of MART-1-related cancers and malignancies and kits for use in said methods. Further provided are methods for screening to identify agonists and antagonists of cancer antigens associated with MART-1-related cancers and malignancies.

8

Title: *PAR-3 compounds for therapy and diagnosis and methods for using same*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 079699

Filed: February 19, 2002

Abstract

The present invention provides methods and compositions for detecting, diagnosing, prognosing and monitoring the progress of PAR-3-related cancers and malignancies and kits for use in said methods. Further provided are methods for screening to identify agonists and antagonists of cancer antigens associated with PAR-3-related cancers and malignancies.

9

Title: *Novel p53BP2 compounds for therapy and diagnosis and methods for using same*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 114091

Filed: April 1, 2002

Abstract

The present invention provides methods and compositions for detecting, diagnosing, prognosing and monitoring the progress of p53BP2-related cancers and malignancies and kits for use in said methods. Further provided are methods for screening to identify agonists and antagonists of cancer antigens associated with p53BP2-related cancers and malignancies.

10

Title: *Therapeutic anti-melanoma compounds*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 922405

Filed: August 3, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

11

Title: *Therapeutic anti-melanoma compounds*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 812238

Filed: March 19, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

12

Title: *Antigenic CK-18 compounds for therapy and diagnosis and methods for using same*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 026001

Filed: December 21, 2001

Abstract

The present invention provides methods and compositions for detecting, diagnosing, prognosing and monitoring the progress of CK-18-related cancers and malignancies and kits for use in said methods. Further provided are methods for screening to identify agonists and antagonists of cancer antigens associated with CK-18 related cancers and malignancies.

13

Title: *Therapeutic compounds for ovarian cancer*

Inventors: Nicolette, Charles A.; (Framingham, MA)

Serial No.: 931969

Filed: August 17, 2001

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

14

Title: *Compounds for therapy and diagnosis and methods for using same*

Inventors: Nicolette, Charles A.; (Framingham, MA)
Serial No.: 017327
Filed: December 6, 2001

Abstract

The present invention provides methods and compositions for detecting, diagnosing, prognosing and monitoring the progress of eIF3-related cancers and malignancies and kits for use in said methods. Further provided are methods for screening to identify agonists and antagonists of cancer antigens associated with eIF3-related cancers and malignancies.

15

Title: *Method to identify antibody targets*

Inventors: Nicolette, Charles A.; (Framingham, MA) ; Roberts, Bruce L.; (Southborough, MA)
Serial No.: 955656
Filed: September 18, 2001

Abstract

The present invention provides methods for methods of identifying novel therapeutic polypeptide antigens and epitopes. These methods are designed to select polypeptides that are particularly effective targets for antibody based immunotherapies. The invention further provides therapeutic polypeptide antigens and epitopes polypeptides that are useful for inducing an immune response in a subject. In addition, the invention provides antibodies directed against these polypeptide antigens and epitopes and methods for using these antibodies to inhibit the progression of disease in a subject.

16

Title: *Altered peptide ligands*

Inventors: Nicolette, Charles A.; (Framingham, MA)
Serial No.: 077629
Filed: February 14, 2002

Abstract

The present invention provides compositions comprising altered peptide ligands that elicit immune responses in a subject to a native peptide. This invention also provides methods to raise T cell populations as well as a substantially purified population of said T cells. Altered peptide ligands find application in a wide variety of immunomodulatory protocols, including methods to induce or increase an immune response, as well as in methods to suppress or reduce an undesirable immune response, to a corresponding natural epitope.

17

Title: *Genes differentially expressed in cancer cells to design cancer vaccines*

Inventors: Roberts, Bruce L.; (Southboro, MA) ; Shankara, Srinivas; (Shrewsbury, MA) ; Nicolette, Charles A.; (Framingham, MA)
Serial No.: 826609
Filed: April 5, 2001

Abstract

The present invention calls utilized genes differentially expressed in target cells to design vaccines to generate an immune response. Unlike prior art methods that seek to identify antigenic proteins from phenotypic analysis, the subject method applies functional genomics for antigen identification. The method

is exemplified herein and therefore provides compositions and methods for inducing an immune response against gp 100 melanoma cells and for inducing an immune response against HER-2.sup.+cells. Cancer vaccines and adoptive immunotherapeutic methods to treat and prevent conditions associated with the presence of these cells in a subject also are provided. The methods can be practiced by administering the appropriate gene or cancer vaccine, antibody, protein, polypeptide, antigen-presenting cell or immune effector cell.

18

Title: *Cell fusions and methods of making and using the same*

Inventors: Nicolette, Charles; (Framingham, MA) ; Roberts, Bruce L.; (Southboro, MA) ; Gong, Jianlin; (Brookline, MA) ; Kufe, Donald; (Wellesley, MA)

Serial No.: 782492

Filed: February 12, 2001

Abstract

The invention is concerned with fusions of dendritic cells and antigen presenting cells. Also provided are methods of making and using these cell fusions, including methods of adoptive immunotherapy. The fusions according to the invention can also be used in methods for antigen discovery.

19

Title: *Preparation and use of particulates composed of adenovirus particles*

Inventors: Roberts, Bruce L.; (Southboro, MA) ; Nicolette, Charles; (Framingham, MA) ; Shankara, Srinivas; (Shrewsbury, MA)

Serial No.: 841836

Filed: April 25, 2001

Abstract

This invention provides particulates of adenoviral particles comprised of individual adenovirus virions complexed to an insoluble micro-platform material and for such compositions further comprised of a polynucleotide encoding an antigenic peptide. The invention further provides method for forming such complexes such that the compositions are useful for transfecting phagocytic antigen presenting cells such as dendritic cells and for vaccinating a subject against disease.

20

Title: *Therapeutic anti-cytomegalovirus compounds*

Inventors: Nicolette, Charles A ; (Framingham, MA)

Serial No.: 434982

Filed: October 23, 2003

Abstract

The present invention provides synthetic compounds, antibodies that recognize and bind to these compounds, polynucleotides that encode these compounds, and immune effector cells raised in response to presentation of these epitopes. The invention further provides methods for inducing an immune response and administering immunotherapy to a subject by delivering the compositions of the invention.

21

Title: *DERIVATIVES OF BREAST CANCER ANTIGEN HER-2 FOR THERAPEUTICAL USE*

Patent #: EP1287034 A

Publication date: 2003-03-05

Inventor(s): NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US)
Application Number: EP20010927416 20010316

22

Title: *POLYNUCLEOTIDE ENCODING MULTIMERS OF ANTIGENIC PEPTIDES IN ORDER TO ENHANCE PRESENTATION OF THE ANTIGENIC PEPTIDE BY MHC MOLECULES*

Patent #: EP1150708 A

Publication date: 2001-11-07

Inventor(s): SHANKARA SRINIVAS (US); NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US)

Application Number: EP20000908619 20000210

23

Title: *PEPTIDES RELATED TO AN IGF-II-R EPIOTOPE, POLYNUCLEOTIDES ENCODING THE PEPTIDES, AND THEIR USE IN IMMUNOMODULATION*

Patent #: EP1119584

Publication date: 2001-08-01

Inventor(s): NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US)

Application Number: EP19990954742 19991004

24

Title: *COMPOSITIONS AND METHODS FOR ANTIGEN-SPECIFIC VACCINATION*

Patent #: EP1071325

Publication date: 2001-01-31

Inventor(s): NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US)

Application Number: EP19990913979 19990319

25

Title: *NOVEL COMPLEMENTING RECEPTOR-LIGAND PAIRS AND ADOPTIVE IMMUNOTHERAPY USING SAME*

Patent #: EP1069917

Publication date: 2001-01-24

Inventor(s): NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US)

Application Number: EP19990912704 19990319

26

Title: *METHODS FOR ENHANCED ANTIGEN PRESENTATION ON ANTIGEN-PRESENTING CELLS AND COMPOSITIONS PRODUCED THEREBY*

Patent #: EP1063891 A

Publication date: 2001-01-03

Inventor(s): NICOLETTE CHARLES A (US); KAPLAN JOHANNE (US)

Applicant(s): GENZYME CORP (US)

Application Number: EP19990912710 19990319

27

Title: *NOVEL EPS8 COMPOUNDS FOR THERAPY AND DIAGNOSIS AND METHODS FOR USING SAME*

Patent #: WO02080845 A

Publication date: 2002-10-17

Inventor(s): CHARLES A NICOLETTE (US)

Applicant(s): GENZYME CORP (US); CHARLES A NICOLETTE (US)
Application Number: WO2002US10439 20020403

28

Title: *NOVEL BGP COMPOUNDS FOR THERAPY AND DIAGNOSIS AND METHODS FOR USING SAME*

Patent #: WO02080844 A

Publication date: 2002-10-17

Inventor(s): NICOLETTE CHARLES A (US)

Applicant(s): GENZYME CORP (US); NICOLETTE CHARLES A (US)

Application Number: WO2002US10438 20020403

29

Title: *METHOD TO IDENTIFY THERAPEUTIC ANTIIBODY TARGETS ASSOCIATED WITH A THERAPEUTIC RESPONSE*

Patent #: WO0223202 A

Publication date: 2002-03-21

Inventor(s): NICOLETTE CHARLES A (US); ROBERTS BRUCE L (US)

Applicant(s): GENZYME CORP (US); NICOLETTE CHARLES A (US); ROBERTS BRUCE L (US)

Application Number: WO2001US29238 20010918

30

Title: *STRAIN-INDEPENDENT AMPLIFICATION OF PATHOGENS AND VACCINES THERETO*

Patent #: 60/522,310

Filing Date: 9/14/2004

Inventor(s): Irina Tcherepanova; Jason Harris; Charles Nicolette

Applicant(s): Argos Therapeutics Inc. (US); Tcherepanova Irina (US); Harris Jason (US); Nicolette Charles A (US)

31

Title: *CATIONIC PEPTIDE-MEDIATED TRANSFORMATION*

Filing Date: 28 June 2004

Inventor(s): Nicolette Charles A (US); Tcherepanova Irina (US)

Applicant(s): Argos Therapeutics Inc. (US); Nicolette Charles A (US); Tcherepanova Irina (US)

32

Title: Immunoglobulin construct containing tumor- specific p53bp2 sequences for eliciting an anti-tumor response

Patent #: 20060099202

Filing Date: 11 May 2006

Inventor(s): Nicolette Charles A., Soltis Daniel A.

33

Title: *USE OF SOLUBLE CD83 FOR TOLERIZATION TO A THERAPEUTIC COMPOSITION*

Filing Date: 18 August 2006

Inventor(s): Nicolette Charles A (US)

Applicant(s): Argos Therapeutics Inc. (US); Nicolette Charles A

34

Title: *TRANSIENT EXPRESSION OF IMMUNOMODULATORY POLYPEPTIDES FOR THE PREVENTION AND TREATMENT OF AUTOIMMUNE DISEASE, ALLERGY AND TRANSPLANT REJECTION*

Patent #: PCT/US2009/001232

Filing Date: 27 February 2008

Inventor(s): NICOLETTE, Charles; FATHMAN, C., Garrison; CREUSOT, Remy

Applicant(s): Argos Therapeutics Inc.; THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY